

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

Claims 1-8 Cancelled

9. (Currently Amended) A method for measuring analyte concentration of a chemical or a biological substance, said method comprising the steps of:

- a. providing a reagent film with at least one internal reference standard;
- b. immobilizing a layer of said film onto a test element, thereby providing a film coated test element;
- c. emitting light energy onto a coated test element, wherein said light energy undergoes internal reflection and multiangle scattering inside said test element, said light energy being effective to stimulate a dual reference light response from said coated test element;
- d. exposing said coated test element to a sample substance for a specified time period, then removing said exposed test element from said substance, thereby providing a sample test element;
- e. emitting light energy onto said sample test element, said light energy being effective to stimulate a dual sample light response from said sample test element;
- f. collecting and processing said reference and sample light response data to calculate a light absorption response; and
- g. utilizing said light absorption response to detect and quantify analyte concentration in said substance[[]] ; and
- h. generating a signal indicative of said analyte concentration based on said detection and quantification.

10. (Original) The method of claim 9 further comprising the step of collecting dynamic data from said light absorption response during a specified time period.

11. (Original) The method of claim 10 further comprising the step of analyzing said dynamic data for determining initial slope, intermediate slope, and final slope of said light absorption response during said time period.

12. (Original) The method of claim 9 wherein said light absorption response is error corrected by normalizing said light absorption response.

13. (Original) The method of claim 12 wherein said normalizing is performed according to the formula: $A_{\text{corrected}} = A_{\text{sample}} - A_{\text{baseline}} + (A_{\text{baseline_at_}\lambda_{\text{reference}}} - A_{\text{baseline_at_}\lambda_{\text{sample}}})$.

14. (Original) The method of claim 9 wherein said coated test element is a multisectional test element capable of providing a plurality of said light absorption responses, said plurality of said light absorption responses being processed and multiplexed in order to detect and quantify a plurality of analyte concentrations in said substance.